

研究论文

喷放稀土对甘蔗植株ATP酶和根际土壤酶活性的影响

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摘要 本文研究了在甘蔗分蘖末期喷施稀土对甘蔗植株ATP酶和根际土壤酶活性以及根际细菌数量的影响。结果表明, 分蘖末期喷施稀土提高了甘蔗叶片的Mg²⁺-ATP酶、Ca²⁺-ATP酶和根细胞的Na⁺-K⁺-ATP酶的活性。提高了叶绿素含量、光合还原力和根系活力, 使土壤中有益的根际细菌数量增加, 土壤酶活性提高, 促进了甘蔗生长, 提高了甘蔗产量。

关键词 [稀土,甘蔗,ATP酶,土壤酶](#)

分类号

Effects of Rare Earth Spraying on Activities of ATPase and Enzymes in the Rhizosphere of Sugarcane

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Abstract Effect of rare earth spraying at the end of tillering phase of sugarcane on activities of ATPase and enzymes in the rhizosphere was investigated. The results suggested that rare earth spraying at the end of tillering phase increased the activities of Mg²⁺-ATPase and Ca²⁺-ATPase in sugarcane leaves and Na⁺-K⁺-ATPase in the root cells. Chlorophyll contents, photosynthetic rate, the vigor of root system, the amount of rhizobacteria and activities of enzymes in soil were also increased. As a result, the growth rate and yield of sugarcane were promoted.

Key words [Rare earth](#) [Sugarcane](#) [ATPase](#) [Soil enzyme](#)

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扩展功能

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